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## NOTICE OF ALLOWANCE AND FEE(S) DUE

27383 7590 03/25/2008 CLIFFORD CHANCE US LLP EXAMINER

WRIGHT, JAMES B

ART UNIT PAPER NUMBER

3694 DATE MAILED: 03/25/2008

31 WEST 52ND STREET NEW YORK, NY 10019-6131

 APPLICATION NO.
 FILING DATE
 FIRST NAMED INVENTOR
 ATTORNEY DOCKET NO.
 CONFIRMATION NO.

 09/819.304
 03/28/2001
 John Platrick McIntyre JR.
 6208-018
 4056

TITLE OF INVENTION: INDEX SELECTION METHOD

APPLN, TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(8) DUE	DATE DUE
nonprovisional	NO	\$1440	\$300	\$0	\$1740	06/25/2008

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

#### HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

## PART B - FEE(S) TRANSMITTAL

# Complete and send this form, together with applicable fee(s), to: Mail Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

or Fax (571)-273-2885

INSTRUCTIONS: This appropriate. All further e indicated unless correcte maintenance fee notificat	form should be used I correspondence including d below or directed off ions.	or tran ng the l nerwise	smitting the ISSU Patent, advance or in Block 1, by (a						ould be completed wher correspondence address a rate "FEE ADDRESS" fo
CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)					Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.				
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									(Date)
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09/819,304	03/28/2001			John Patrick McIntyre JR.				6208-018	4056
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APPLN, TYPE	SMALL ENTITY	IS	SUE FEE DUE	PUBLICATION FEE I	DUE	PREV. PAID ISSUE	E FEE	TOTAL FEE(S) DUE	DATE DUE
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☐ Change of correspondence address (or Change of Corresponden Address form PTO/SB/122) attached. ☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a Custom				(2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent, attorneys or agents. If no name is 3					
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3. ASSIGNEE NAME AT									
PLEASE NOTE: Unle recordation as set forth	ess an assignee is ident n in 37 CFR 3.11. Com	ified be detion	low, no assignee of this form is NO	data will appear on t T a substitute for filin;	the pag	tent. If an assign assignment.	ee is io	lentified below, the do	cument has been filed fo
(A) NAME OF ASSIC				(B) RESIDENCE: (C					
Please check the appropri	ate assignee category or	catego	ries (will not be pr	inted on the patent):	۵	Individual 🗖 Co	orporati	ion or other private gro	up entity 🚨 Governmen
4a. The following fee(s) a	are submitted:		48	o. Payment of Fee(s):	(Plea	se first reapply an	y prev	iously paid issue fee s	hown above)
Issue Fee				A check is enclosed.					
☐ Publication Fee (No small entity discount permitted) ☐ Advance Order - # of Copies			rd)	☐ Payment by credit card. Form PTO-2038 is attached. ☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any					
				overpayment, to l	Depo	sit Account Numbe	T	(enclose ar	extra copy of this form).
	SMALL ENTITY state	ıs. See	37 CFR 1.27.					ITTY status. See 37 CF	
NOTE: The Issue Fee and interest as shown by the r	I Publication Fee (if req ecords of the United Sta	uired) v tes Pate	will not be accepted ent and Trademark	d from anyone other the Office.	han th	ne applicant; a regi	stered .	attorney or agent; or th	e assignee or other party is
Authorized Signature				Date					
Typed or printed name				Registration No.					
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PTOL-85 (Rev. 08/07) Approved for use through 08/31/2010.



# UNITED STATES PATENT AND TRADEMARK OFFICE

#### UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
09/819,304	03/28/2001	John Patrick McIntyre JR.	6208-018	4056	
27383 75	590 03/25/2008		EXAM	IINER	
CLIFFORD CHANCE US LLP			WRIGHT, JAMES B		
31 WEST 52ND STREET NEW YORK, NY 10019-6131			ART UNIT PAPER NUMBE		
			3694		

DATE MAILED: 03/25/2008

# Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 1118 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 1118 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

# Notice of Allowability

Application No.	Applicant(s)
09/819,304	MCINTYRE ET AL.
Examiner	Art Unit
I Bradley Wright	3694

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

- This communication is responsive to 8/13/2007.
- The allowed claim(s) is/are 2-20 and 22-40.
- Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - b) ☐ Some\* c) ☐ None of the: a)  $\square$  All
    - 1. 

      Certified copies of the priority documents have been received.
    - 2. 

      Certified copies of the priority documents have been received in Application No. \_\_\_\_
      - 3. Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
  - \* Certified copies not received:

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

- A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
- CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
  - (a) Including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
    - 1) hereto or 2) to Paper No./Mail Date
    - (b) I including changes required by the attached Examiner's Amendment / Comment or in the Office action of

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. 

DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

## Attachment(s)

- 1. Notice of References Cited (PTO-892)
- Notice of Draftperson's Patent Drawing Review (PTO-948)
- Information Disclosure Statements (PTO/SB/08). Paper No./Mail Date
- 4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
- 5. Notice of Informal Patent Application
- 6. Interview Summary (PTO-413), Paper No./Mail Date
- 7. T Examiner's Amendment/Comment
- 8. X Examiner's Statement of Reasons for Allowance
- 9. ☐ Other .

Application/Control Number: 09/819,304

Art Unit: 3694

## Allowable Subject Matter

The following is an examiner's statement of reasons for allowance:

The closest prior art of record is Michaud, et al. (US Patent No. 6,003,018). Michaud discloses a portfolio optimization by means of resampled efficient frontiers wherein the variance of a portfolio may be stated as the sum of the weighted variances of the individual assets and such portfolio optimization is a statistical procedure, based on estimated returns subject to a statistical variance. Michaud further discloses that since the input data used for mean-value (MV) optimization are of a statistical nature (i.e., characterized by means with associated variances and other statistical measures), the input data may be iteratively resampled to generate a set of statistically equivalent portfolios that may correspond to a minimum variance.

However, regarding independent claims 17 and 37, Michaud taken either individually or in combination with the other prior art of record fails to teach or suggest a method, as claimed, including an iterative resampling that includes removing and reinstating instruments from and to the universe when calculating the variance of the universe during optimization, wherein the index is formed when the remaining dv01 of the universe is a predetermined percentage of the original dv01 of the universe.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

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Art Unit: 3694

## Conclusion

The following prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

- Yahil, et al. (US Patent No. 7,328,182) discloses a system and method for prediction of behavior in financial systems.
- Hunter, et al. (US Patent Application Publication No. 2003/0046212) discloses resource allocation techniques.
- Goldfarb, et al. (US Patent Application Publication No. 2002/0123953)
   discloses systems and methods for providing robust investment portfolios.
- Browne, et al. (US Patent No. 7,228,290) discloses a method and system for simulating risk factors in parametric models using risk neutral historical bootstrapping.
- Cooper, et al. (US Patent No. 7,236,953) discloses deriving a probability distribution of a value of an asset at a future time.
- Sale (US Patent No. 7,085,690) discloses unsupervised machine learningbased mathematical model selection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to J. Bradley Wright whose telephone number is (571)272-5872. The examiner can normally be reached on M - F 8:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Trammell can be reached on (571) 272-6712. The fax phone Art Unit: 3694

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/jbw/

/James P Trammell/ Supervisory Patent Examiner, Art Unit 3694